

Amendment After Final Rejection  
Serial No.10/076,194

Docket No. US020037

### **REMARKS**

Entry of this Amendment and reconsideration are respectfully requested in view of the amendments made to the claims and for the remarks made herein.

Claims 1-20 are pending and stand rejected. Claims 3, 6, 13, 18, and 19 have been amended to correct errors in form.

Claims 1, 2, 4, 5, 8, 11, and 16-17 stand rejected under 35 USC 102(a) as being anticipated by Basu (USP no. 6,219,640), for the same reasons recited in rejecting the claims in the prior Office Action. In response to applicant's arguments in response to the rejection of the claims stated in the prior Office Action, the instant Office Action states that "Busa discloses combined audio-visual feature vectors (col. 12, lines 50-54), thus the correlation values are determined [as] the sum of the elements between audio and object features are in the extracted visual speech feature vectors from extractor 24 and the acoustic feature vectors from the extractor 14, the AV utterance verifier 28 performs verification, involving comparisons of the resulting likelihood of aligning the audio on a random sequence of visemes, which are visual phonemes, generally mouth shapes that accompany speech utterances which are categorized and pre-stored similar to acoustic phonemes, utterance verification is to determine speech used to verify speaker in audio path I and the visual cues used to verify the speaker in the video path II correlates or align, col. 11, lines 10-31 and col. 7, lines 6-26."

Applicant respectfully disagrees with, and explicitly traverses, the reason for rejecting the claims for the same arguments recited in applicant's response to the rejection of the claims stated in the prior Office Action and, which are reasserted, as if in full, herein.

In response to the statements made in the instant Office Action, a reading of the referred-to sections in the Basu reference fail to disclose the claim element "wherein said correlation values are determined as the sum of the elements of a subset between said audio features and selected object features."

A review of the Basu references reveals that Basu teaches determining factors associated with audio and visual material individually and then comparing evaluating the

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processed information. For example, col. 2, lines 10-14, states "[t]he use of two independent sources of information brings significantly increased robustness to speaker recognition since signal degradation in the two channels are uncorrelated." And "the processed audio signal is compared with the processed video signal to determine a level of correlation between the signals" (see col. 2, lines 30-36). With reference to Figure 1, Basu teaches that audio speaker recognition "module 16 may perform speaker identification and/or speaker verification using the extracted acoustic feature vectors" (see col. 5, lines 29-32). A similar process is performed by Face Recognition module 24 (see col. 7, line 1 – col. 8, line 3). The individually determined audio and visual features, as represented by scores, which are then processed together to determine a speaker. For example, Basu discloses, in one aspect, that "[t]he top N scores are generated-based on both audio and video-based identification techniques. The two lists [i.e., one for audio and one for video] are combined by a weighted-sum and the best-scoring candidate is chosen (see col. 8, line 47-49). In another aspect, Basu teaches "processing a video signal associated with the video source and processing an audio signal associated with video signal." Furthermore "the joint identification/verification module makes a decision with regard to the speaker. In a verification scenario, based on one of the techniques described above, a decision may be made to accept the speaker, if he is verified via both the acoustic path and the visual path. However, he may be rejected if he is only verified through one of the paths. In an identification scenario, for example, the top three scores from the face identification process may be combined with the top three scores from the acoustic speaker identification process. Then, the highest combined score is identified as the speaker" (see col. 10, lines 1-11).

Hence, Basu teaches the processing of the audio and visual features, independently, to determine respective scores and then uses the scores to correlate between the audio and visual data. However, Basu fails to teach correlation values determined as the sum of the elements of a subset between said audio features and selected object features and then determining a maximum correlation value as is recited in the claims.

It is well recognized that to constitute a rejection pursuant to 35 USC §102, i.e., anticipation, all material elements recited in a claim must be found in one unit of prior art.

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Basu cannot be said to anticipate the present invention, because Basu fails to disclose each and every element recited.

For at least this reason, applicant submits that the reason for the rejection of the claims has been overcome and respectfully requests that the rejection be withdrawn.

With regard to the remaining independent claims, these claims recite subject matter similar to that recited in claim 1 and were rejected for the same reason used in rejecting claim 1. Thus, for the remarks made in response to the rejection of claim 1, which are also applicable in response to the rejection of these claims, and reasserted, as if in full, herein, applicant submits that the reason for rejecting these claims has been overcome and the rejection can no longer be sustained. Applicant respectfully requests withdrawal of the rejection and allowance of the claims.

With regard the remaining dependent claims these claims ultimately depend from the independent claims which have been shown to contain subject matter not disclosed by, and, hence, allowable over, the reference cited. These claims are also allowable by virtue of their dependency from an allowable base claim.

Claim 3 stands rejected under 35 USC 103(a) as being unpatentable over Basu as applied to claim 2, in view of Nevenka (USPPA no. 2003/0108334).

With regard to claim 3, this claim depends from independent claim 1, which has been shown to recite subject matter not disclosed by the primary reference (Basu) and Nevenka fails to teach or suggest elements of the invention recited in claim 1 to correct the deficiencies found to exist in the Basu reference. Hence, the combination of Basu and Nevenka fails to teach or suggest all the elements recited in claim 3.

For at least this reason, applicant submits that the combination of Basu and Nevenka fails to render obvious the invention claimed in claim 3. Applicant respectfully request withdrawal of the rejection and allowance of the claims.

Although the last Office Action was made final, this amendment should be entered. No matter has been added to the claims that would require comparison with the prior art or any further review only require a cursory review is required by the examiner. The amendment therefore should be entered without requiring a showing under 37 CFR 1.116(b).

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Applicant further submits that the claims were amended to correct errors in form and not to overcome the reference cited. Applicant submits that the substance of the claims has not been amended and the amendments made are neither related to patentability nor alter or limit the substance of the subject matter claimed.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

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